



PO Box 310
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December 20, 2001

Hand Delivered

Utah Coal Program
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84114-5801

Attn: Daron Haddock

Subject: **Response to Deficiencies in the Des Bee Dove Mine, Phase 1 Reclamation Plan, PacifiCorp, Des Bee Dove Mine, C015/017-AM01A-1, Emery County, Utah**

PacifiCorp, by and through its wholly-owned subsidiary, Energy West Mining Company ("Energy West") as mine operator, hereby submits responses to round two deficiencies of the Des Bee Dove Mine Phase 1, Reclamation Plan. The original application was submitted March 29, 2001. Energy West received the deficiencies in the document dated on April 19, 2001. Response to the deficiencies was submitted on September 15, 2001. Energy West received round two deficiencies on November 9, 2001.

The attached document attempts to answer the deficiencies in the order they were received. The Division's findings will be first listed by regulation and explanation. Energy West will follow by a response in *italics*.

Accompanying this letter are Seven (7) copies of deficiency responses. Also accompanying this submittal are amendments to the Des Bee Dove Mine Phase 1, Reclamation Plan required by the November 9, 2001 Technical Analysis. Redline/strikeout copies of the amended portions are included as well as the C1/C2 form for their placement into the reclamation plan. If you have any questions or concerns regarding this document, please contact myself at (435) 687-4720 or Dennis Oakley at (435) 687-4825.

Sincerely,

Dennis Oakley

for Charles A. Semborski
Permitting/Geology Supervisor

RECEIVED

Enclosure: Response to Technical Analysis Deficiencies
C1/C2 Forms for placement into Phase 1, Reclamation Plan
Redline/Strikeout binder of Phase 1, Reclamation Plan

DIVISION OF
OIL, GAS AND MINING

Cc: Carl Pollastro (EWMC, w/o encl.)
Scott Child (IMC, w/o encl.)
File

Huntington Office:
(435) 687-9821
Fax (435) 687-2695
Purchasing Fax (435) 687-9092

Deer Creek Mine:
(435) 687-2317
Fax (435) 687-2285

Trail Mountain Mine:
(435) 748-2140
Fax (435) 748-5125

gac

The following responses to deficiencies are formatted as found in the technical analysis document. They are broken down into logical section headings similar to the R645 regulations. In each section, the regulation number along with the associated deficiency is followed by the permittee's italicized response.

General Contents

Permit Application Format and Contents

R645-301-121.200, The proposed Appendix XIV contains information that contradicts information in the approved Mining and Reclamation Plan (MRP). The Permittee must provide a short-term resolution to this conflict until the plan is updated.

As recommended by the Division, Energy West, as a temporary measure, has provided seven (7) copies of Part 4 and Appendix XIV insert which states: In event of contradiction between Appendix XIV and Part 4, Appendix XIV will take precedence.

Environmental Resource Information

SOILS RESOURCE INFORMATION

R645-301-122, Please provide to the Division a copy of the soil survey report for the Des Bee Dove Mine site by Dr. A.R. Southard, as referenced on page 2, Section 200 of the submittal.

R645-301-200 Soil Section has been revised to include a separate Appendices entitled "Appendix B: Historical Soil Survey Data".

Operation Plan

TOPSOIL AND SUBSOIL

R645-301-233, Incorporate the response to AM01C (NOV 01-7-1-1 Abatement information) into the submittal. Provide depth increments on the laboratory analysis sheets for samples taken in 2001 at SS7A and SS7B. Correct the legend on Drawing CS1814D for soil sample location symbols and dates.

R645-301-200 Soil Section has been revised to include; a separate Appendices entitled "Appendix C: Soil Management Plan, 2001 Soil Analyses in Appendix A have been revised to include depth increments and Drawing CS1814D has been revised to correct location symbols and dates.

SPOIL AND WASTE MATERIALS

The information provided in the application meets the minimum Solid and Waste Materials requirements of the regulations. The Division requests that PacifiCorp include a copy of this letter in section R645-301-500 of Appendix XIV.

Engineering Section has been revised to include a separate Appendices entitled "Appendix D: Asphalt Disposal - Permit-By-Rule Approval. In addition, R645-301-542, Procedural Steps of Reclamation Table, Item #3, has been revised to include a reference to Appendix D.

BACKFILLING AND GRADING

R645-301-553.500, the Permittee must commit to adhering to the recommendations made within the slope stability report. Construction methods found in the plan must not contradict with the RB&G report.

All sections have been revised to state "Compaction will be applied as lifts of material are placed. Material will be compacted as specified in the R.B & G engineering recommendations or as directed by an on-site geotechnical engineer. Large boulders will be removed to allow compaction in the separate lifts. Lifts are not to exceed recommendations in R, B & G slope stability analysis, refer to R645-301-500 Appendix C.

TOPSOIL AND SUBSOIL

Information provided in the proposed amendment is not adequate to meet the Reclamation Topsoil and Subsoil requirements of the Regulations until percent very fine sand is included in the analytical parameters as requested by the technical analysis of AM01C (NOV 01-7-1-1). Substitute topsoil will be identified for use in the Little Dove/Beehive area and along the access road after trenching.

Soil sampling parameters were revised to include "percent very fine sand", (refer to R645-301-200 Soils Section Appendix C: Soil Management Plan).

HYDROLOGIC INFORMATION

R645-301-731.224.1, -742.110, -742.210, There is no standard or method described that can be used to determine the success of the proposed sediment-control methods. The computer code RUSLE (from NRCS) or equivalent methods can provide an estimate of sediment contribution from reclaimed and undisturbed watersheds; however, there do not appear to be water-quality or sediment load baseline data for this Des-Bee-Dove drainage to allow a comparison such as was done at the nearby Deer Creek Mine: this lack of baseline or background data will need to be accounted for in any method used to evaluate the effectiveness of the proposed sediment control measures. Such an evaluation may indicate the proposed measures are not adequate and more robust methods of sediment control are needed for this steep, dry, rocky, exposed site.

Energy West used RUSLE, Version 1.06 to model sediment loss from both the disturbed and the undisturbed areas at the Des-Bee-Dove mine site. These two areas were compared using known data and information of the surrounding area. Editing of the City database was conducted in order to gain historical meteorological data similar to the conditions found at the Des Bee Dove mine site (i.e. temperature, precipitation, elevation, exposure, etc.). Precipitation and temperature data from the town of Hiawatha, Utah was added to the data base in order to conduct this modeling exercise.

The soil erodibility "K" factor made use of the Soil Survey of the Carbon-Emery Area (issued 1970). The characteristics of the Kennilworth series (KeE2) was used for all undisturbed "K" factor calculations. The values as estimated by Dan Larson (soil scientist for Environmental Industrial Services) were used for all disturbed "K" factor calculations.

The hillslope length and gradient factors were found using the contour map (CS1854D) found in this appendix. Constructed slopes will be similar to or less than natural slopes. Location of slope profiles are shown on this map. The gradients found in the undisturbed and proposed reclamation areas are steep and exceed the design parameters of the program. In discussion with the program authors, accuracy for predicting sediment yield diminish with increasing gradient. Predicting output from RUSLE is still considered acceptable if comparisons are based on similar criteria recognizing the fact that research has not been conducted on slopes exceeding 50-60%.

Because of the Deer Creek mine's close proximity and similar elevation to the Des Bee Dove Mine, cover management factors for the undisturbed areas were used. This information (canopy cover and productivity) is found in the Deer Creek MRP (Volume 1, Part 2). Effective root mass was calculated within the program using the cold desert shrubs community. This community best describes the vegetative community found at the Des Bee Dove and Deer Creek mines.

This comparison has been placed in an new Appendix B in R645-301-700: Hydrology. A 3.5 inch floppy disk containing the RUSLE program is also contained in this appendix.

R645-301-742.220, -121.200, Please clarify whether or not the sedimentation pond is to treat runoff from the site or the runoff will meet effluent standards before it leaves the reclaimed area. The role of the sedimentation pond in this reclamation plan is not clear. Reclaimed areas will continue to report to the sedimentation pond (R645-301-553.100, p. 12). The sedimentation pond will remain until vegetation is established (R645-301-541) and the Division approves its removal; however,

sediment should be controlled before it leaves the reclaimed area, so the sedimentation pond should not be needed.

All runoff from the disturbed and undisturbed area of the Des-Bee-Dove mine site has always reported to the sediment pond. After reclamation this will still be true. The pond will not be removed until the Division gives the permittee approval to remove it. Sediment will be controlled through alternative sediment control measures (i.e. deep gouging). As mentioned above, RUSLE was used to model sediment loss from both the disturbed and the undisturbed areas of the mine site. The modeling program found that sediment loss from the disturbed area will be equal to or less than the undisturbed areas above the mine. Therefore, it not expected that water quality downstream will be degraded in any way. Text in R645-301-500: Engineering and R645-301-700 : Hydrology have been amended to, hopefully, better explain the role of the sediment pond during reclamation.

APPLICATION FOR PERMIT PROCESSING

 Permit Change ☒ New Permit ☐ Renewal ☐ Transfer ☐ Exploration ☐ Bond Release ☐

Permit Number: C/015/017

 Title of Proposal: **Response to Deficiencies in the Des Bee Dove Mine, Phase 1 Reclamation Plan, PacifiCorp, Des Bee Dove Mine, C015/017-AM01A-1, Emery County, Utah**

Mine: Des-Bee-Dove Mines

Permittee: PacifiCorp

Description, include reason for application and timing required to implement: New binder entitled "Phase 1 Reclamation Plan"

Instructions: If you answer yes to any of the first 8 questions (gray), this may be a Significant Revision and require Public Notice. Any questions, please call a Permit Supervisor.

- | | | |
|---|--|---|
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 1. Change in the size of the Permit Area? _____ acres Disturbed Area? _____ acres <input type="checkbox"/> increase <input checked="" type="checkbox"/> decrease. |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 2. Is the application submitted as a result of a Division Order? DO # _____ |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 3. Does application include operations outside a previously identified Cumulative Hydrologic Impact Area? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 4. Does application include operations in hydrologic basins other than as currently approved? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 5. Does application result from cancellation, reduction or increase of insurance or reclamation bond? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 6. Does the application require or include public notice/publication? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 7. Does the application require or include ownership, control, right-of-entry, or compliance information? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 9. Is the application submitted as a result of a Violation? NOV # _____ |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 10. Is the application submitted as a result of other laws or regulations or policies? Explain: _____ |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 11. Does the application affect the surface landowner or change the post mining land use? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2?) |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 13. Does the application require or include collection and reporting of any baseline information? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 14. Could the application have any effect on wildlife or vegetation outside the current disturbed area? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 15. Does application require or include soil removal, storage or placement? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 16. Does the application require or include vegetation monitoring, removal or revegetation activities? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 17. Does the application require or include construction, modification, or removal of surface facilities? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 18. Does the application require or include water monitoring, sediment or drainage control measures? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 19. Does the application require or include certified designs, maps, or calculations? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 20. Does the application require or include subsidence control or monitoring? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 21. Have reclamation costs for bonding been provided for? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 22. Does application involve a perennial stream, a stream buffer zone or discharges to a stream? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 23. Does the application affect permits issued by other agencies or permits issued to other entities? |

✓ Attach 7 complete copies of the application.

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

 Signed - Name - Position - Date
Charles A. Semborski Geology/Permitting Supervisor
December 20, 2001
Subscribed and sworn to before me this 20 day of December, 2001.
 My Commission Expires: December 22, 2001
 Attest: Utah
 COUNTY OF Emery

} ss:

 Received by Oil, Gas & Mining
RECEIVED
 DEC 20 2001
 DIVISION OF
 OIL, GAS AND MINING
 ASSIGNED TRACKING NUMBER

Permittee: PacifiCorp

Provide a detailed listing of all changes to the mining and reclamation plan which will be required as a result of this proposed permit application. Individually list all maps and drawings which are to be added, replaced, or removed from the plan. Include changes of the table of contents, section of the plan, pages, or other information as needed to specifically locate, identify and revise the existing mining and reclamation plan. **Include page, section and drawing numbers as part of the description.**

[illegible]

Any other specific or special instructions required for insertion of this proposal into the Mining and Reclamation Plan?